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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,005	11/13/2000	Purnam Anil Sheth	CISCO-3096	8953

7590

02/10/2005

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EXAMINER

NGUYEN, QUANG N

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/712,005

Applicant(s)

SHETH ET AL.

Examiner

Quang N. Nguyen

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 52-71 is/are allowed.
- 6) ☒ Claim(s) 1-5, 9-11, 14-18, 22-24, 27-31, 35-37 and 40-51 is/are rejected.
- 7) ☒ Claim(s) 6-8, 12, 13, 19-21, 25, 26, 32-34, 38 and 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>See attachments</u> . | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

1. This Office Action is in response to the Amendment filed on 09/27/2004. Claims 32 and 53 have been amended. Claims 57-71 have been added as new claims. Claims 1-71 are presented for examination.

Claim Objections

2. Claims 62-66, 68-69 and 71 are objected to because of the following informalities:

Claim 62, line 3: "... domains, the method comprising:" should be "... domains, comprising:"

Claims 63, line 1: "The method of claim 62 ..." should be "The program storage device of claim 62 ..."

Claims 64, line 1: "The method of claim 62 ..." should be "The program storage device of claim 62 ..."

Claim 65, line 3: "... domains, the method comprising:" should be "... domains, comprising:"

Claims 66, line 1: "The method of claim 65 ..." should be "The program storage device of claim 65 ..."

Claims 68, line 1: "The method of claim 67 ..." should be "The apparatus of claim 67 ..."

Claims 69, line 1: "The method of claim 67 ..." should be "The apparatus of claim 67 ..."

Claims 71, line 1: "The method of claim 70 ..." should be "The apparatus of claim 70 ..."

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. **Claims 1-2, 14-15 and 27-28 are rejected under 35 U.S.C. 102(a) as being anticipated by Jacobson et al. (US 6,044,402), herein after referred as Jacobson.**

5. As to claim 1, Jacobson teaches a method for controlling subscriber access in a network capable of establishing connections with a plurality of domains, comprising:

receiving a communication from a subscribe, using a first communication network coupled to at least one other communication network (*i.e., receiving a packet 114 transmitted between the protected and remote host computers 104-1 and 104-2*), said

communication optionally including a domain identifier associated with a domain on said at least one other communication network (*a network header 142 in each packet 114 containing a transport protocol ID 148, a source address 144 and a destination address 146, according to the Webopedia.com definition of "domain", wherein within the Internet, domains are defined by the IP address and all devices sharing a common part of the IP address are said to be in the same domain*) (Jacobson, Fig. 1, C3: L27-56 and C11: L1-41);

determining whether said subscriber is authorized to access said domain based upon said domain identifier and a list of authorized domains for a virtual circuit used to received said communication (Jacobson, C15: L66-67 and C16: L1-21);

authorized subscriber access to said domain when said domain identifier is included in said list (Jacobson, C18: L42-53).

6. As to claim 2, Jacobson teaches the method of claim 1, further comprising terminating said communication when said domain identifier is not included in said list (Jacobson, C18: 1-42-53).

7. Claims 14-15 are corresponding program storage device claims of method claims 1-2; therefore, they are rejected under the same rationale.

8. Claims 27-28 are corresponding apparatus claims of method claims 1-2; therefore, they are rejected under the same rationale.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described, as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 3-5, 9-11, 16-18, 22-24, 29-31, 35-37 and 40-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson, in view of Loehndorf, Jr. et al. (US 6,094,437), herein after referred as Loehndorf.**

11. As to claims 3-4, Jacobson teaches the method of claim 1, but does not explicitly teach said communication comprises a Point-to-Point Protocol (PPP) session, which in turn comprises a tunneling session and said PPP session is forwarded onto a tunnel associated with an assigned tunnel ID when said subscriber is authorized to access said domain.

In a related art, Loehndorf teaches that the Point-to-Point Protocol (*PPP*) has been standardized by the Internet Engineering Task Force (*IETF*) to be used to allow Internet Protocol (*IP*) and other protocols (*such as IPX, XNS, AppleTalk, etc.*) to be sent over non-IP mediums such as the Public Switched Telephone Network (*PSTN*), ATM, Frame Relay, SONET, etc. in Internet communications. Loehndorf also teaches the

IETF developed the L2TP (Layer Two Tunneling Protocol) to allow the PPP session to be tunneled over the Internet by establishing the tunnel using a tunnel ID (*i.e., forwarding PPP session onto a tunnel associated with an assigned tunnel ID*) (Loehndorf, C1: L43 - C3: L25 and C11: L36-67).

Therefore, it would have been obvious to one having ordinary skills in the art at the time the invention was made to forward a PPP session onto a tunnel associated with an assigned tunnel ID when said subscriber is authorized to access said domain since such methods were conventionally employed in the art to securely send data between networks and to provide needed and improved functionality.

12. As to claim 5, Jacobson-Loehndorf teaches the method of claim 4, wherein said tunnel session comprises an L2TP session (C2: L66 - C3: L7).

13. As to claim 9, Jacobson-Loehndorf teaches the method of claim 5, wherein said determining further comprises:

issuing a tunnel ID request including domain name and a virtual circuit identifier (*the routing function of L2TP access payloads is performed on the L2TP tunnel information, which includes the L2TP tunnel ID and call ID with the proper IP and UDP source and destination addresses, i.e., the incoming call tunnel addressing "ICT" that the L2TP Access Concentrator "LAC" communicates the service provider that it wishes to use, by the tunnel that it chooses to send data over*); and

receiving a tunnel ID (Loehndorf, C11: L1-55).

14. As to claim 10, Jacobson-Loehndorf teaches the method of claim 9, wherein an AAA server services said tunnel ID request (Loehndorf, C2: L32-46).

15. As to claim 11, Jacobson-Loehndorf teaches the method of claim 9, wherein said virtual circuit identifier comprises a VPINCI identifier (*Loehndorf teaches that IP packets may be transported as AMT cells, wherein it is well-known in the art that each ATM cell contains 48 bytes payload and 5 bytes header containing virtual path identifier "VPI" and virtual channel identifier "VCI" fields, which defines a channel*).

16. Claims 16-18 and 22-24 are corresponding program storage device claims of method claims 3-5 and 9-11; therefore, they are rejected under the same rationale.

17. Claims 29-31 and 35-37 are corresponding apparatus claims of method claims 3 and 9-11; therefore, they are rejected under the same rationale.

18. Claims 40-51 are corresponding access server claims of method claims 1, 3-5 and 9-11; therefore, they are rejected under the same rationale.

Allowable Subject Matter

19. Claims 6-8, 12-13, 19-21, 25-26, 32-34, 38-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

independent form including all of the limitations of the base claim and any intervening claims.

20. Claims 52-71 are allowed.

Response to Arguments

21. In the remarks, applicant argued in substance that

(A) Prior Art does not disclose, “receiving a communication from a subscriber using a first communication network coupled to at least one other communication network, said communication optionally including a *domain* identifier associated with a domain on said at least one other communication network.”

As to point (A), **Jacobson** teaches a method for controlling subscriber access in a network capable of establishing connections with a plurality of domains, comprising receiving a communication from a subscribe, using a first communication network coupled to at least one other communication network (*i.e., receiving a packet 114 transmitted between the protected and remote host computers 104-1 and 104-2*), said communication optionally including a domain identifier associated with a domain on said at least one other communication network (*a network header 142 in each packet 114 containing a transport protocol ID 148, a source address 144 and a destination address 146, according to the Webopedia.com definition of “domain”, wherein within the Internet,*

domains are defined by the IP address and all devices sharing a common part of the IP address are said to be in the same domain) (Jacobson, Figs. 1 and 3, C3: L27-56, C11: L1-41 and C12: L33-59).

In addition, according to Microsoft Computer Dictionary, Fifth Edition (AQ 76.5. M52267 2002), the definition of "domain name" is "An address of a network connection that identifies the owner of that address is hierarchical format: *server.organization.type*. For example, *www.whitehouse.gov* identifies the Web server at the White House, which is part of the U.S. government." Hence, a network address (i.e., source address, destination address) can be used to define a domain.

(B) Prior Art does not teach, "determining whether said subscriber is authorized to access said domain based upon said domain identifier and a list of authorized domains for a virtual circuit used to receive said communication."

As to point (B), Jacobson teaches the blocking controller determines whether to block a connection based on the connection information set and the blocking data structure, a connection will only be allowed (*i.e., a subscriber is authorized to access*) if the network address is in the network access list (*i.e., a list of authorized domains*) (Jacobson, C15:L66 – C16:L20).

22. Applicant's arguments as well as request for reconsideration filed on 09/27/2004 have been fully considered but they are not deemed to be persuasive.


23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Nguyen whose telephone number is (571) 272-3886.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's SPE, Rupal Dharia, can be reached at (571) 272-3880. The fax phone number for the organization is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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